

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Carl H. June *et al.*

Serial No.: 09/027,205

Filed: February 20, 1998

For: *METHODS FOR MODULATING EXPRESSION  
OF AN HIV-1 FUSION COFACTOR*

Attorney Docket No.: GIN-005

Group Art Unit: 1644

Examiner: P. Gambel



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Assistant Commissioner for Patents  
Washington, D.C. 20231

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By:

Amy E. Mandragouras  
Reg. No. 36,207  
Attorney for Applicant

RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS  
FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE  
AND/OR AMINO ACID SEQUENCE DISCLOSURES

Dear Sir:

This is in response to the Examiner's communication dated April 14, 1999. Please amend the application as follows: Please renumber the pages of the claims and the abstract accordingly.

In the specification:

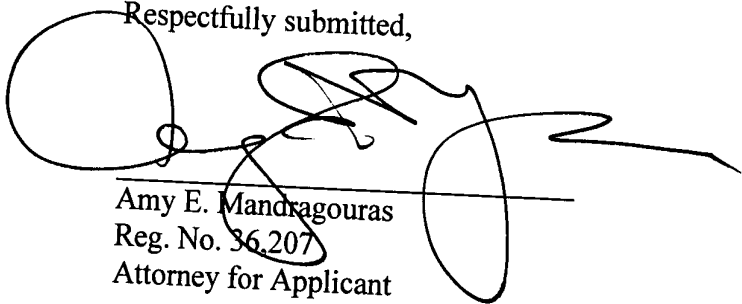
Please replace ~~pages~~ 41-44 of the specification with substitute pages 41 - 43 filed herewith.

**REMARKS**

In the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated April 14, 1999 (hereinafter "Notice"), the Examiner requires that Applicants submit a substitute computer readable form (CRF) copy of the "Sequence Listing", as well as a substitute paper copy of the "Sequence Listing" for the above-identified application. Applicants submit herewith substitute pages 41 - 43 which contain the Sequence Listing corrected as required in the Notice. In addition, Applicants submit herewith a computer-readable form (diskette) of this sequence.

The content of the substitute paper and computer readable copies of the Sequence Listing are the same and include no new matter, as required by 37 C.F.R. §1.825(a) and (b). No new matter has been added to the application. Accordingly, as the above amendments do not affect the issue of patentability, it is respectfully requested that they be entered.

Respectfully submitted,



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Attorney for Applicant

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Facsimile: (617) 742-4214

Date: June 29, 1999

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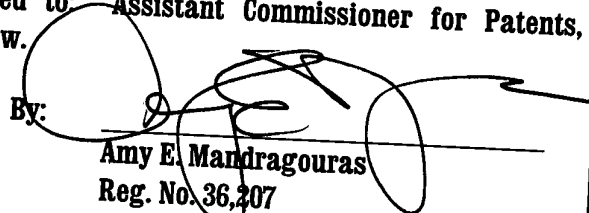
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Amy E. Mandragouras  
Reg. No. 36,207  
Attorney for Applicant

RESPONSE TO RESTRICTION REQUIREMENT

Dear Sir:

This is in response to the Office Action dated April 14, 1999 (Paper No. 5). A separate petition for the appropriate extension of time to respond is being filed concurrently herewith.

The Examiner has required restriction of the above-identified application to one of the following inventions under 35 U.S.C. 121:

Group I. Claims 1-5 and 8-20, drawn to methods of upregulating/modulating HIV-fusion cofactor expression.

- Group II. Claims 1-7 and 11-20, drawn to methods of downregulating/modulating HIV-fusion cofactor expression.
- Group III. Claims 21-32, drawn to methods of treating a subject having an HIV-1 infection with an agent which stimulates a CD28-associated signal.
- Group IV. Claims 33-42, drawn to methods of treating a subject having an HIV-1 infection with an agent comprising obtaining T cells and contacting said T cells with an agent which stimulates a CD28-associated signal.
- Group V. Claims 43-46, drawn to a composition comprising an anti-CD28 antibody.
- Group VI. Claims 43-45, 47-48, and 51, drawn to a composition comprising an anti-CTLA-4 antibody.
- Group VII. Claims 43-45, 49-50, and 52-53, drawn to a composition comprising an anti-CD28 antibody and an anti-CD3 antibody.
- Group VIII. Claims drawn to a method of identifying an agent that modulates the expression of an HIV-1 fusion cofactors.

Applicants hereby elect the Group I invention (claims 1-5 and 8-20) for prosecution, without traverse. Applicants reserve the right to traverse the restriction between the non-elected groups in this or a separate application.

In addition, if either Group I, II, or III is elected, the Examiner has further requested an election of one of the following distinct species:

- A) an anti-CD28 antibody,
- B) an anti-CTLA-4 antibody or
- C) an anti-CD28 antibody and an anti-CD3 antibody.

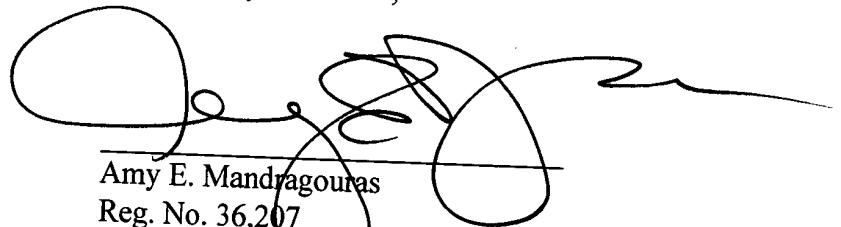
Accordingly, Applicants hereby elect species A (an anti-CD28 antibody).

It is the Applicants' understanding that under 35 U.S.C. §121, an election of a single species for prosecution on the merits is required, to which the claims will be restricted if no generic claim is finally held allowable. Currently claim 1 is generic. Upon the allowance of the generic claim, Applicants will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.141 *et seq.*

### SUMMARY

If a telephone conversation with Applicant's Attorney would expedite the prosecution of the above-identified application, the Examiner is urged to call Applicant's Attorney at (617) 227-7400.

Respectfully submitted,



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